

**Barker Bros – Ridgewood  
Draft Upland Site Summary**

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**BARKER BROS – RIDGEWOOD (DAR SITE ID #2)**

Address: 1666 Summerfield Street, Ridgewood, New York 11385  
Tax Lot Parcel(s): Queens Block 3555, Lot 42  
Latitude: 40.695981  
Longitude: -73.900925  
Regulatory Programs/  
Numbers/Codes: USEPA ID No. NYD001291921, CBS No. 2-000125, PBS No.  
2-016209, SIC No. 3291, TRI No. 11385BRKRB1666S,  
AFS No. 36081N0100  
Analytical Data Status: ☐ Electronic Data Available ☐ Hardcopies only  
☒ No Data Available

**1 SUMMARY OF CONSTITUENTS OF POTENTIAL CONCERN (COPCs) TRANSPORT  
PATHWAYS TO THE CREEK**

The current understanding of the transport mechanisms of contaminants from the upland portions of the Barker Bros – Ridgewood site (site), also known as Barker Brothers, Inc. (Barker Brothers), to Newtown Creek is summarized in this section and Table 1 and supported in the following sections.

**Overland Transport**

The site is located approximately 1.7 miles from Newtown Creek and associated waterways. This is not a complete historical or current pathway.

**Bank Erosion**

The site is not adjacent to Newtown Creek or associated waterways. This is not a complete historical or current pathway.

**Groundwater**

Groundwater quality information for this site was not identified in documents available for review. The site is located approximately 1.7 miles from Newtown Creek and associated waterways. There is insufficient evidence to make a historical or current pathway determination.

### Overwater Activities

This site is not adjacent to Newtown Creek or associated waterways and has no overwater activities. This is not a complete historical or current pathway.

### Stormwater/Wastewater Systems

Information regarding on-site stormwater infrastructure and management was not identified in documents available for review. This site is within the Newtown Creek Water Pollution Control Plant (WPCP) sewershed. Stormwater and wastewater discharges from the site have the potential to flow into a combined municipal sewer system. When the combined flows exceed the system's capacity, untreated combined sewer overflows (CSOs) are discharged to English Kills, a tributary to Newtown Creek at Outfall NC-083 (NYCDEP 2007). There is insufficient evidence to make a historical or current pathway determination for direct discharge of stormwater, wastewater, and sewer/CSO.

### Air Releases

The site currently operates under Air Title V Facility Permit No. 2-6305-00005/00024 (NYSDEC 2010). The site is listed in the Toxic Release Inventory (TRI) database (TRI No. 11385BRKRB1666S) for the release of toxic chemical, 1,1,1-trichloroethane, to the air. The Air Facility System (AFS) database indicates the site (AFS No. 36081N0100) has intermittent non-compliance since 1995. Specific details of the non-compliance were not found in available site records. There is no available information related to the magnitude, spatial, or temporal extent of air transport mechanisms. There is insufficient evidence to make a historical or current pathway determination.

## 2 PROJECT STATUS

No available documents containing environmental investigations or remediation were identified for this site. A New York State Department of Environmental Conservation (NYSDEC) Site Code was not found for this site.

## 3 SITE OWNERSHIP HISTORY

Respondent Member:

☐ Yes ☒ No

Owner	Years	Occupant	Types of Operations
Unknown	Prior – 1922	Unknown	Unknown
Barker Brothers, Inc.	06/27/22 – present	Same	Manufacturer of Buffing Products

#### 4 PROPERTY DESCRIPTION

The site occupies approximately 0.1 acre and is located approximately 1.7 miles southwest of Newtown Creek and English Kills. The site is approximately 76 feet above mean sea level. The site is completely covered by a building.

The site is fronted by Summerfield Street along the northwest boundary and buildings abut the site on the remaining three sides (see Figure 1). The area is zoned for M-1 manufacturing district, which typically includes light industrial uses (NYCDCP 2012). Residential districts are also present in the surrounding neighborhood.

#### 5 CURRENT SITE USE

Barker Brothers, is a developer and manufacturer of buffs and buffing treatments. The company provides buff services nationwide (Barker Brothers 2012). Cloth fabric is cut, shaped, and impregnated with various coatings, which provide the buffing cloths with abrasive and polishing characteristics (NYSDEC 2010). The Standard Industrial Classification (SIC) code for this site is 3291 – Abrasive Products (NYSDEC 2010).

#### 6 SITE USE HISTORY

Information on the use and occupancy of the site prior to 1922 was not located in available site documents. Barker Brothers registered in New York State as a domestic business corporation at the site in June 1922 (NYSDOS 2012). In 1951, a map indicated a “manufacturer of buffing wheels” occupied the site (Sanborn 1951), which suggested that Barker Brothers still occupied the site at that time. In 1968, Barker Brothers leased the adjacent property located at 1668-70 Summerfield Street (Block 3555, Lot 45) and installed a sprinkler system connecting the adjacent leased property to the site (Barker Brothers 1968).

## **7 CURRENT AND HISTORICAL AREAS OF CONCERN AND COPCS**

The current understanding of the historical and current potential upland areas of concern at the site is summarized in Table 1. The following sections provide brief discussion of the potential sources and COPCs at the site requiring additional discussion.

### **7.1 Uplands**

The buffs and buffing treatment manufacturing process involves the preparation of cloth fabric by cutting and shaping, impregnation of the fabric with various agents and colors, and drying the buffing wheels. There are six natural gas-fired drying ovens, as well as ancillary and auxiliary processing operations, such as solvent immersion, solvent extraction, and solvent recovery, which are used in the impregnation facet of the process (NYSDEC 2010). Process and building heating requirements are supplied by one distillate and five natural gas-fired boilers and 27 natural gas-fired space heating units. Other equipment include raking machines, hand trimmers, immersion tanks, extractors, dust collectors, solvent recovery stills, cleaning and mixing stations, convolute slurry tank, a winding machine, and drying ovens. Coatings are prepared in 55-gallon drums (NYSDEC 2010).

Site emissions are generated from production-related processes, where cloth fabrics are impregnated with volatile organic compound- (VOC-) containing coatings and subsequently dried (NYSDEC 2010). The site has annual emissions of VOCs greater than 25 tons per year (NYSDEC 2010). According to the available documents, the site did not discharge TRI chemicals to surface water, land, or underground injection in the years 1990 through 1993. Air emissions were the only documented release of TRI chemicals (USEPA 2012).

The site is classified as a Resource Conservation and Recovery Act (RCRA) large quantity generator (LQG), and available documents indicate Barker Brothers has been a generator of non-wastewater hazardous waste since at least 1989 (NYSDEC 1990). Wastes generated at the site are described as still bottoms resulting from solvent recovery containing 1,1,1-trichloroethane (Chemical Abstract Number [CAS] No. 71-55-6) and mineral spirits (CAS No. 64742-88-7) and has been classified as D001 (ignitable), D018 (benzene), F002 (halogenated solvents), and F003 and F005 (non-halogenated solvents) on hazardous waste

reports. The maximum recorded amount of generated waste found in available site records was 62.1 tons in 2004 (NYSDEC 1990).

Barker Brothers was historically a permitted petroleum bulk storage (PBS) site (PBS No. 2-016209) and chemical bulk storage (CBS) site (CBS No. 2-000125), though permits expired in 1992 and 1995, respectively (NYSDEC 2012). PBS No. 2-016209 indicates Barker Brothers was registered to two 550-gallon underground storage tanks (USTs) and one 1,050-gallon aboveground storage tank (AST) located at 1661-79 Summerfield Street, Queens, New York (located off site across Summerfield Street from the site). Both USTs stored gasoline and were closed in 1987 and 1989. The AST (in contact with soil) stored No. 2 heating fuel oil and was converted to non-regulated use in 1996 (NYSDEC 2012).

Potential historical and current contaminant sources at the site include products and equipment used in the development and manufacturing of buffs and buffing treatments, production-related emissions, and petroleum storage. The COPCs for these sources include VOCs (including 1,1,1-trichloroethane), polycyclic aromatic hydrocarbons (PAHs), and total petroleum hydrocarbons (TPHs).

## **7.2 Overwater Activities**

This site is not adjacent to Newtown Creek or associated waterways and has no overwater activities.

## **7.3 Spills**

Reviewed records did not indicate current or historical spills.

## **8 PHYSICAL SITE SETTING**

Site-specific hydrogeologic information was not identified in documents available for review. The geologic setting for Newtown Creek consists of impermeable Precambrian and Paleozoic crystalline bedrock, overlain by the Upper Cretaceous Raritan formation, Magothy formation and Matawan Group (undifferentiated), unconsolidated Pleistocene deposits and upper Pleistocene glacial deposits and Holocene shore, beach salt-marsh deposits, and alluvium, along with local occurrences of artificial fill (Buxton et al. 1981; Soren and

Simmons 1987). The primary areas of groundwater discharge are Newtown Creek and its tributaries and the East River (Misut and Monti 1999). In the vicinity of Newtown Creek, groundwater flow in the Upper Glacial aquifer is generally north and south toward the creek. With increased distance from the creek, groundwater will flow toward the nearest surface water body to discharge (Misut and Monti 1999). Incidences of perched groundwater may occur above the Upper Glacial Aquifer in some areas, particularly in formerly low-lying areas that have been filled. Groundwater flow at a specific property may differ from the regional pattern due to pumping for groundwater treatment or dewatering activities (Misut and Monti 1999), the presence of buried utilities, or other preferential pathways.

## 9 NATURE AND EXTENT (CURRENT UNDERSTANDING OF ENVIRONMENTAL CONDITIONS)

### 9.1 Soil

Soil Investigations

☐ Yes ☒ No

Bank Samples

☐ Yes ☐ No ☒ Not Applicable

Soil-Vapor Investigations

☐ Yes ☒ No

No soil investigations have been conducted at the site.

### 9.2 Groundwater

Groundwater Investigations

☐ Yes ☒ No

NAPL Presence (Historical and Current)

☐ Yes ☒ No

Dissolved COPC Plumes

☐ Yes ☒ No

Visual Seep Sample Data

☐ Yes ☐ No ☒ Not Applicable

No groundwater investigations have been conducted at the site.

### 9.3 Surface Water

Surface Water Investigation	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
SPDES Permit (Current or Past)	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Industrial Wastewater Discharge Permit (Current or Past)	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Stormwater Data	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Catch Basin Solids Data	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Wastewater Data	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No

#### 9.3.1 Stormwater and Wastewater Systems

Information regarding on-site stormwater infrastructure and management was not identified in documents available for review. This site is within the Newtown Creek WPCP sewershed. Stormwater and wastewater discharges from the site have the potential to flow into a combined municipal sewer system. When the combined flows exceed the system's capacity, untreated CSOs are discharged to English Kills, a tributary to Newtown Creek at Outfall NC-083 (NYCDEP 2007).

### 9.4 Sediment

Creek Sediment Data ☐ Yes ☐ No ☒ Not Applicable

Information regarding sediment investigations was not identified in documents available for review.

### 9.5 Air

Air Permit	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Air Data	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No

#### 9.5.1 Air Permit

The site currently operates under Air Title V Facility Permit No. 2-6305-00005/00024 (NYSDEC 2010). Under this permit, the site has 15 permitted emission points. The following table lists the frequency and type of monitoring conducted, as required by the current conditions of the permit.

Permit Type	Permit Number	Effective Date	Frequency-Parameters (Limit)
Air Title V Facility	2-6305-00005/00024	5/17/00 (Renewed in 2005, 2010; Current permit effective until 6/30/15)	<u>Daily Monitoring</u> Opacity – greater than or equal to 20 percent opacity (6-minute average) except for one continuous 6-minute period per hour of not more than 57 percent opacity  <u>Semi-annual Monitoring</u> VOC Content – 2.9 pounds per gallon (minus water and excluded VOCs)  <u>Intermittent Monitoring</u> Particulates – 0.150 grains of particulate per cubic foot of exhaust gas

Note:

VOC – volatile organic compound

The AFS database, as updated in November 2011, indicates the site (AFS No. 36081N0100) has historically been “in violation” in November 1995, February 1997, June and July 2002, and May and June 2003 (USEPA 2012). The specific nature of the violations were not found in available site records.

### 9.5.2 Air Data

The site is listed in the TRI database (TRI No. 11385BRKRB1666S) for the release of toxic chemical, 1,1,1-trichloroethane, to the air in 1990, 1992, and 1993 (USEPA 2012). Total aggregate releases from the site, as reported in the TRI database, are summarized in the following table. Total VOC emissions for the site, as reported in Air Title V Facility Permit No. 2-6305-00005/00024, are also reported for the years 2007 and 2008 (NYSDEC 2010).



Report Date	Constituent	Result	Unit	Limit	Source
1990	1,1,1-trichloroethane	287,160	pounds	---	(USEPA 2012)
1992	1,1,1-trichloroethane	291,456	pounds	---	(USEPA 2012)
1993	1,1,1-trichloroethane	77,820	pounds	---	(USEPA 2012)
2007	Total VOCs	69,042	pounds	---	(NYSDEC 2010)
2008	Total VOCs	49,640	pounds	---	(NYSDEC 2010)

## Notes:

--- – Value not indicated in source document

USEPA – U.S. Environmental Protection Agency

NYSDEC – New York State Department of Environmental Conservation

VOC – volatile organic compound

Available documents for the site contained no information related to the magnitude, spatial, or temporal extent of air transport mechanisms.

### 9.5.3 Air Summary

The site currently operates under Air Title V Facility Permit No. 2-6305-00005/00024 (NYSDEC 2010). The site is listed in the TRI database (TRI No. 11385BRKRB1666S) for the release of toxic chemical, 1,1,1-trichloroethane, to the air. The AFS database indicates the site has intermittent non-compliance since 1995. Specific details of the non-compliance were not found in available site records.

## 10 REMEDIATION HISTORY (INTERIM REMEDIAL MEASURES AND OTHER CLEANUPS)

Information related to remediation was not found in reviewed documents.

## 11 BIBLIOGRAPHY/INFORMATION SOURCES

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Soren and Simmons (Soren, J. and Simmons, D.L.), 1987. *Thickness and Hydrogeology of Aquifers and Confining Units Below the Upper Glacial Aquifer on Long Island, New York*. U.S. Geological Survey. Water-Resources Investigations Report 86-4175. Scale 1:125,000. 1987.

USEPA (U.S. Environmental Protection Agency), 2012. Envirofacts Database Search. Accessed February 28, 2012.  
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## 12 ATTACHMENTS

### Figures

Figure 1                      Site Vicinity Map: Barker Bros – Ridgewood

### Tables

Table 1                      Potential Areas of Concern and Transport Pathways Assessment

**Table 1**  
**Potential Areas of Concern and Transport Pathways Assessment – Barker Bros – Ridgewood**

Potential Areas of Concern	Media Impacted					COPCs															Potential Complete Pathway						
Description of Areas of Concern	Surface Soil	Subsurface Soil	Groundwater	Catch Basin Solids	Creek Sediment	TPH			VOCs			SVOCs	PAHs	Phthalates	Phenolics	Metals	PCBs	Herbicides and Pesticides	Dioxins/Furans	Overland Transport	Groundwater	Direct Discharge – Overwater	Direct Discharge – Storm/Wastewater	Discharge to Sewer/CSO	Bank Erosion	Air Releases	
						Gasoline-Range	Diesel – Range	Heavier – Range	Petroleum Related (e.g., BTEX)	VOCs	Chlorinated VOCs																
Products and equipment used in the development and manufacturing of buffs and buffing treatments (1922 – present)	?	?	?	?	?	?	?	?	?	✓	✓	?	?	?	?	?	?	?	?	--	?	--	?	?	--	?	
Waste generation activities	?	?	?	?	?	?	?	?	?	✓	✓	?	?	?	?	?	?	?	?	--	?	--	?	?	--	?	
Former USTs (gasoline)	?	?	?	?	?	✓	✓	?	✓	✓	?	?	?	?	?	?	?	?	?	--	?	--	?	?	--	?	
ASTs (fuel oil)	?	?	?	?	?	✓	✓	?	✓	✓	?	?	✓	?	?	?	?	?	?	--	?	--	?	?	--	?	
Production-related emissions	?	--	--	--	?	?	?	?	?	✓	✓	?	?	?	?	?	?	?	?	--	--	--	--	--	--	?	

## Notes:

√ – COPCs are/were present in areas of concern having a current or historical pathway that is determined to be complete or potentially complete.

? – There is not enough information to determine if COPC is/was present in area of concern or if pathway is complete.

-- Current or historical pathway has been investigated and shown to be not present or incomplete.

AST – aboveground storage tank

BTEX – benzene, toluene, ethylbenzene, and xylene

COPC – constituent of potential concern

CSO – combined sewer overflow

PAH – polycyclic aromatic hydrocarbon

PCB – polychlorinated biphenyl

SVOC – semi-volatile organic compound

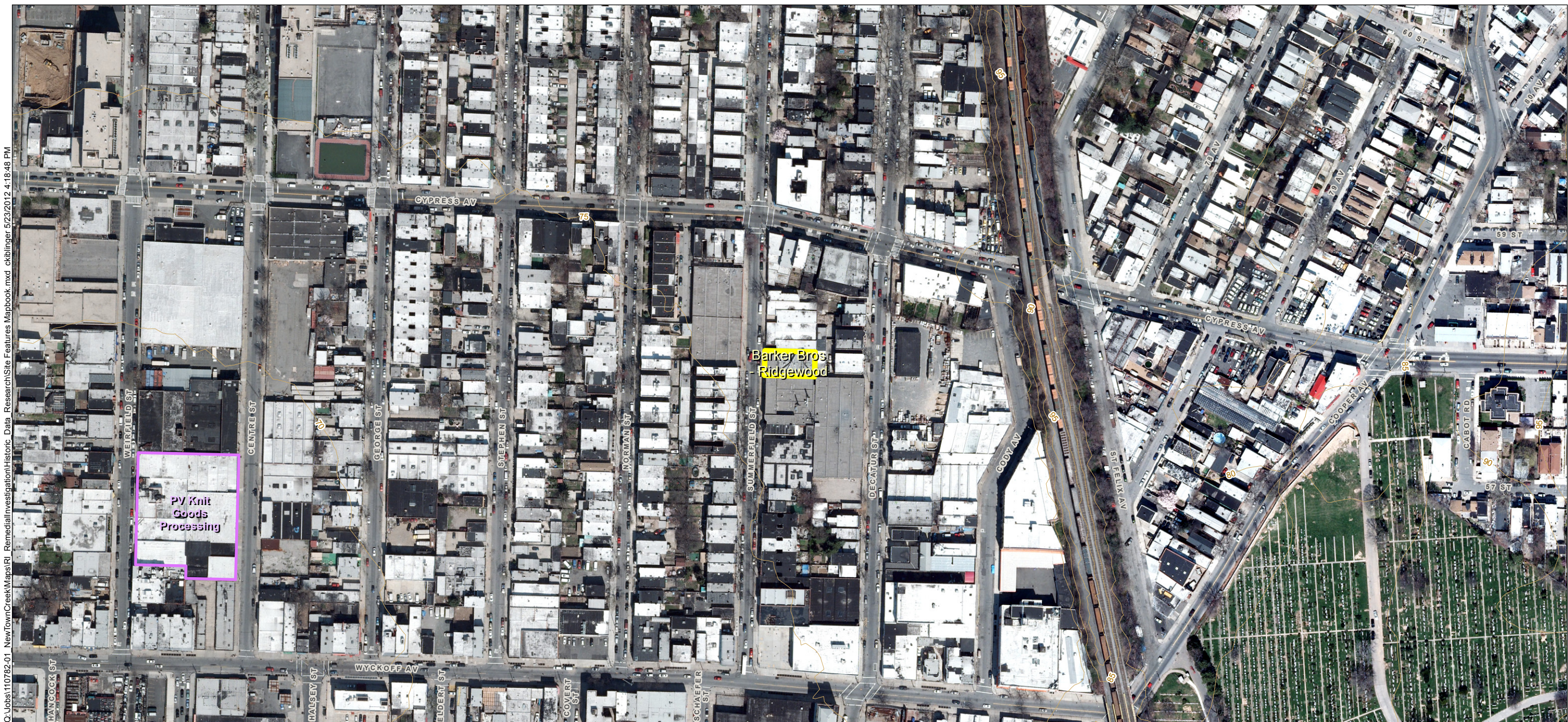
TPH – total petroleum hydrocarbon

UST – underground storage tank

VOC – volatile organic compound



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USEPA Sample Locations (Surface and Subsurface)

Shoreline (NYC Dept. of Information Technology, 2006)

USGS Nat'l Elev. Dataset 5-foot Contours

Selected Site Property Boundary

Neighboring Site Property Boundary

Outfall Class

Direct Discharge

General

Highway Drain

Major Stormwater Outfall

SPDES

Storm Drain

**NOTES:**  
1. Outfall Labeling: BB: Bowery Bay; NC(B/Q): Newtown Creek, Brooklyn/Queens; ST: Stormwater.  
2. Outfall locations are preliminary, compiled, estimated data based on New York City Department of Environmental Protection (NYCDEP) maps and tabulated data and other resources. Many outfall locations were taken from the New York City Shoreline Survey Program: Newtown Creek Water Pollution Control Plant Drainage Area, NYCDEP, March 31, 2003. Other locations were taken from an excerpt from a similar report from 2008 (the complete report was not included in files available for review). Finally, some outfall locations were inherited from previous Anchor QEA and Newtown Creek Project work. Latitudinal and longitudinal data provided in the 2003 and 2008 NYCDEP reports were rounded to the nearest second. This resulted in potential outfall location discrepancies of up to approximately 200 feet. All outfall locations are currently under field verification.  
3. Aerial Photos: New York State Division of Homeland Security and Emergency Services, 2010.  
4. Site Boundaries are based on New York City parcels data.  
5. Coarse topographic contours are derived from U.S. Geological Survey 10-meter data.

Feet

0100200300400

NEWTOWN CREEK

EAST RIVER

HUDSON RIVER

DRAFT

**Figure 1**  
Site Vicinity Map  
Draft Upland Site Summary: Barker Bros - Ridgewood  
Newtown Creek RI/FS